

**REMARKS/ARGUMENTS**

Claims 1-9 and 11-14 now stand in the present application, claims 3 and 14 having been amended and claim 10 having been canceled.

Applicants note with appreciation the Examiner's indication of allowable subject matter in claim 8 but respectfully submit that in view of the above amendments and the following remarks that all of the claims now standing in the application are in condition for allowance. Accordingly, reconsideration and favorable action is respectfully requested in this case.

In the Office Action, the Examiner has rejected claims 1-7 and 9-14 under 35 U.S.C. § 102(b) as being anticipated by Mori et al. (hereinafter "Mori"). Applicants respectfully traverse the Examiner's § 102 rejection of the claims.

Applicants' invention is directed to a magnetic resonance imaging apparatus and data processing method wherein corrections for non-uniformity in luminance and signal values of image data are carried out. More particularly, in a first embodiment of Applicants' invention, a region reduction unit applies region reduction to a signal near a no-signal region of image data obtained by the scan. This first embodiment of Applicants' invention is described, *inter alia*, at page 38, lines 18-20 and is recited in independent claims 1 and 12 and dependent claims 4-5.

A second embodiment of Applicants' invention requires a linear interpolation unit that linearly interpolates a no-signal region in a patient of the sensitivity map data. This second embodiment of Applicants' invention is described, *inter alia*, at page 40, lines 16-20 of the present specification and is recited in independent claims 2 and 13 and dependent claims 6-8.

A third embodiment of Applicants' invention requires generating the sensitivity correction data using after region reduction processing of data extracted by applying threshold value processing to original data of the sensitivity correction data, as described, *inter alia*, at page 47, lines 7-14 of the present specification. This third embodiment of Applicants' invention was expressly recited in original claim 10, now canceled, which has been incorporated into independent claims 3 and 14 and therefore also into dependent claims 9 and 11.

As will be explained in greater detail, none of the above-described elements of Applicants' three embodiments are taught or suggested in Mori. More particularly, Mori fails to teach or suggest a region reduction unit, a linear interpolation unit, or region reduction processing of data extracted by applying threshold value processing to original data of the sensitivity correction data, as now required in each of independent claims 1-3 and the corresponding independent method claims 12-14.

More specifically, Mori describes at paragraph 57 that a low signal field is extracted and it is desirable to perform special processing to the extracted field. Mori goes on to state at paragraph 57 that K of a low signal field is interpolated using K of a high signal field. Interpolating a low signal field based on a high signal field means replacing the low signal field into the high signal field. Accordingly, Mori enlarges a signal field by erasing part of the no-signal field. That is, Mori does not teach or suggest region reduction processing for reducing a high signal region, but instead merely describes processing for enlarging a high signal region which is opposite to region reduction processing utilized in Applicants' invention as required by independent claims 1, 3, 12, 14 and dependent claims 4-5, 9 and 11. In addition, Mori does not teach or

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suggest linearly interpolating a no-signal region as required by independent claims 2, 12 and dependent claims 6 and 8.


Accordingly, all of claims 1-9 and 11-14, now standing in the application, are believed to patentably define over Mori.

Therefore, in view of the above amendments and remarks, it is respectfully requested that the application be reconsidered and that all of claims 1-9 and 11-14, now standing in the application, be allowed and that the case be passed to issue. If there are any other issues remaining which the Examiner believes could be resolved through either a supplemental response or an Examiner's amendment, the Examiner is respectfully requested to contact the undersigned at the local telephone exchange indicated below.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

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